cessation, environmental tobacco smoke, media and advertising, minors' access and school curriculum.
The GYTS will attempt to address the following issues:

- Determine the level of tobacco use
- Estimate the age of initiation of cigarette use
- Estimate levels of susceptibility to become cigarette smokers
- Exposure to tobacco advertising
- Identify key intervening variables, such as attitudes and beliefs on behavioural norms with regard to tobacco use among young people which can be used in prevention programmes
- Assess the extent to which major prevention programmes are reaching school based populations and establish the subjective opinions of those populations regarding such interventions.

Methods

Sampling

The 2003 Hungary GYTS was a school-based survey with a two-stage cluster sample design to produce a nationally representative sample in seventh, eighth, ninth and tenth grades (i.e. grades which contain most of the students aged between 13 and 15).
The first-stage sampling frame consisted of all schools containing seventh, eighth, ninth and tenth grades. Schools were selected with probability proportional to school enrolment size.
The second sampling stage consisted of systematic equal probability sampling (with a random start) of classes from each school that participated in the survey. All classes in the selected schools were included in the sampling frame. All students in the selected classes were eligible to participate in the survey.
There was a regional stratification for sampling as well: 20 schools were selected both from Budapest (1597 students) and from other urban region (1896 students), and 27 schools were selected from the rural region (1647 students). Altogether 5140 students were sampled from 67 schools. Overall response rates can be seen in the table below:

	All schools	**Budapest**	**Other Urban**	**Rural**
Schools (%)	98.5%	95.0%	100.0 %	100.0 %
Schools (N)	66	19	20	27
Students (%)	87.2%	86.7%	86.4%	88.8%
Students (N)	4484	1384	1638	1462

Weighting

A weight has been associated with each record to reflect the likelihood of sampling each student and to reduce bias by compensating for different patterns of nonresponse. The weight used for estimation is given by:

$$W = W_1 * W_2 * f_1 * f_2 * f_3 * f_4$$

W_1 = the inverse of the probability of selecting the school

W_2 = the inverse of the probability of selecting the classroom within the school

f_1 = a school-level non-response adjustment factor calculated by school size category (small, medium, large)

f_2 = a class adjustment factor calculated by school

f_3 = a student-level nonresponse adjustment factor calculated by class

f_4 = a post stratification adjustment factor calculated by gender and grade.

The weighted results can be used to make important inferences concerning tobacco use risk behaviours of students in seventh, eighth, ninth and tenth grade.

Questionnaire

The questionnaire consists of two main parts: 89 core questions (developed especially for the European region), and 8 optional questions on the possible background factors associated with tobacco use. Core questions focus on seven topics:

- prevalence
- minor's access
- cessation
- knowledge and attitudes
- tobacco-related school-curriculum
- media and advertising
- environmental tobacco smoke.

The questionnaire was translated from English into Hungarian and than independently retranslated into English in order to insure the linguistic quality.

Data Collection and data entering

The National Centre of Health Promotion and Development coordinated the survey. Before data collection all selected schools received a request letter for their permission to implement the survey. Enclosed the schools got letter of support from the Ministry of Education, a short description on the survey purposes and procedures emphasising the assurance of privacy (voluntary and anonymous participation), and information letter for the parents.

Eight survey administrators were trained for the conduction of data collection during a one-day training. They received written instructions too, and all of the documents, needed for fieldwork. Data collection was administered in the school-settings (in the classrooms) using the anonymous self-reported questionnaire. Students recorded their responses directly on an Answer Sheet using a special pencil.

Data collection was administered in February 2003.

All documentations were sent to the National Centre of Health Promotion and Development. After controlling of completed scannable answer sheets as well as controlling and completing of other documentations on data collection, all of these were packed and sent to the CDC. Data scanning and data-file compilation were executed in the CDC.

Statistical Analysis

The Epi Info 2002 statistical software package was used for the complex sampling design and weighting factors in the data set, to calculate standard errors and prevalence estimates.

Percentage prevalences are described in this report giving the 95% confidence intervals (CI) for the estimates. In the result text statistically significant differences are mentioned. Statistical differences is determined by comparing the range of the 95% CI-s for the estimates. If the ranges for the 95%CI do not overlap then the differences are statistically significant.

Results

Prevalences

Table 1A: Percent of students who smoke cigarettes, HUNGARY, GYTS, 2003

Category	Ever Smoked Cigarettes, Even One or Two Puffs	Age of Initiation <10, Ever Smoked Cigarettes	Current Use	Current Cigarette Smokers who Smoke:	
			Cigarettes -- Total	Hand-rolled cigarettes	Manufactured cigarettes
Total	70.7 (± 3.2)	17.7 (± 2.6)	33.5 (±	12.7 (± 2.5)	96.0 (± 1.2)
Sex					
Boy	71.4 (± 3.6)	20.4 (± 3.4)	33.1 (±	14.3 (± 3.2)	95.1 (± 1.9)
Girl	69.5 (± 4.0)	14.6 (± 2.7)	32.7 (±	11.1 (± 3.7)	96.5 (± 1.5)
Region					
Budapest	71.1 (± 6.6)	16.2 (± 4.2)	37.9 (±	17.0 (± 3.0)	96.6 (± 1.8)
Other Urban	72.0 (± 3.8)	16.3 (± 3.2)	34.3 (±	9.9 (± 3.5)	96.0 (± 1.6)
Rural	62.3 (± 11.6)	25.1 (± 7.2)	25.9 (±	20.3 (± 5.1)	94.9 (± 3.2)

Over 7 in 10 (70.7%) of students had ever smoked cigarettes; and 17.7% of ever smokers initiated smoking before age ten (Table 1A). About one-third (33.5%) of students are current cigarette smokers (they smoked cigarette in the past 30 days). Over one in ten (12.7%) current smokers used hand-rolled cigarettes and 96.0% used manufactured cigarettes.

Significantly more rural (20.3%) and Budapest (17.0%) current smokers used hand-rolled cigarettes than other urban students (9.9%).

Table 1B: Percent of students who use other tobacco products, HUNGARY, GYTS, 2003

Category	Current use